

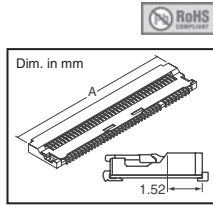
HRS HIROSE ELECTRIC CO.,LTD. High Density FFC/FPC Connectors

FH29 Series (0.2mm Pitch)

Features: • Space saving 0.2mm of contact spacing FPC connectors
 • Easy mounting in double-sided lead design: 0.4mm mounting lead pitch • FPC alignment mechanism enables high connection reliability
 • Suitable for FPC with mating area thickness of 0.2mm • The flip-lock (one-touch rotating system) Zero Insertion Force (ZIF) structure allows easy and reliable FPC connection

Applications: • Mobile phones, LCDs, Digital video cameras (DVC), Digital cameras (DSC), Portable terminals (PDA), Camera modules, Portable equipment

Specifications: • Current Rating: 0.25A • Operating Temperature: -55°C ~ 85°C



No. of Pos.	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 5,000	Hirose Part No.
			1	100	250		
34	8.62	HFD034CT-ND	3.86	3.00	2.40	1663.00/M	FH29-34S-0.2SHW(05)
40	9.82	HFD040CT-ND	4.00	3.11	2.49	1725.00/M	FH29-40S-0.2SHW(05)
44	10.62	HFD044CT-ND	4.09	3.18	2.54	1763.00/M	FH29-44S-0.2SHW(05)
50	11.82	HFD050CT-ND	4.58	3.56	2.85	1975.00/M	FH29-50S-0.2SHW(05)
70	15.82	HFD070CT-ND	4.90	3.81	3.05	2113.00/M	FH29-70S-0.2SHW(05)
80	17.82	HFD080CT-ND	5.13	3.99	3.19	2213.00/M	FH29-80S-0.2SHW(05)
90	19.82	HFD090CT-ND	5.57	4.32	3.46	—	FH29-90S-0.2SHW(05)
120	25.82	HFD120CT-ND	6.90	5.36	4.29	2975.00/M	FH29-120S-0.2SHW(05)

† For Tape and Reel part number, change CT-ND to TR-ND.

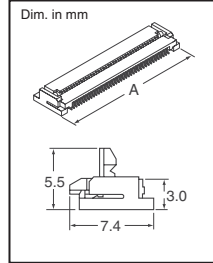
FH16, FH16H, FH16M and FH16P Series (0.3mm/0.4mm/0.5mm Pitch)

Features: The FH16 Series is a fine pitch, Zero Insertion Force (ZIF), right angle, bottom contact connector compatible with Flat Flex Cables (FFC) or flexible printed circuits (FPC) with a pitch of 0.3mm, 0.4mm and 0.5mm. A recommended thickness of 0.295mm for single-sided or 0.306mm for double-sided. The flip-lock (one-touch rotating type) ZIF structure secures the FFC/FPC connection with a single and light force. This design helps simplify assembly and repair work. When locking the FFC/FPC, the audible click will assure of a steady FFC/FPC connection resulting in improved customer service. Embossed tape packaging allows for automatic placement onto the PCB.

Applications: • Notebook computers, printers, PDAs, digital cameras and other compact devices for interconnecting the main circuit board with the LCD, PDP (Plasma Display), HDD or other device

Specifications: • Operating Temperature: -40°C ~ 70°C • Insulation Resistance: 500MΩ minimum • Contact Resistance: 150mΩ maximum (including FFC/FPC conductor resistance)

Materials: • Insulators: Polyamide and LCP - Beige, PPS - Deep Brown; UL94V-0 • Contacts: Phosphor Bronze - Solder plating



Pitch		0.3mm	0.4mm	0.5mm
Current Rating		0.15A	0.3A	0.4A
Voltage Rating		30 VAC	50 VAC	60 VAC

No. of Pos.	Contact Pitch (mm)	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 1,000	Hirose Part No.
				1	100	250		
60	0.3	21.9	HFP060CT-ND	6.06	5.02	3.77	2717.00	FH16-60S-0.3SHW
			HFP160CT-ND†	6.47	5.36	4.02	2899.00	FH16-60S-0.3SHW(05)
80	0.3	27.9	HFP080CT-ND	6.82	5.64	4.23	3055.00	FH16-80S-0.3SHW
			HFP180CT-ND†	6.60	5.59	4.20	3239.00	FH16-80S-0.3SHW(05)
90	0.3	30.9	HFP090CT-ND	7.22	5.98	4.49	3237.00	FH16-90S-0.3SHW
			HFP190CT-ND†	7.02	5.94	4.46	3443.00	FH16-90S-0.3SHW(05)
50	0.5	29.4	HFP050CT-ND	4.67	3.87	2.90	2093.00	FH16H-50S-0.5SHW
			HFP150CT-ND†	6.03	5.00	3.75	2704.00	FH16H-50S-0.5SHW(05)
96	0.4	42.5	HFP096CT-ND	7.08	5.86	4.40	3172.00	FH16M-96S-0.4SHW
			HFP196CT-ND†	7.25	6.14	4.61	3557.00	FH16M-96S-0.4SHW(05)
64	0.5	36.0	HFP064CT-ND	5.97	4.95	3.71	2678.00	FH16P-64S-0.5SHW
			HFP164CT-ND†	6.61	5.48	4.11	2964.00	FH16P-64S-0.5SHW(05)

† Gold Plating • RoHS Compliant ‡ For Tape and Reel part number, change CT-ND to TR-ND.

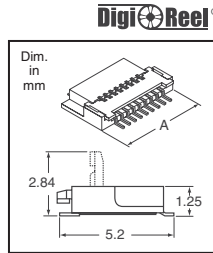
FH23 Series (0.3mm Pitch) Flexible Printed Circuit Connectors

Features: • Provided with a flexible printed circuit (FPC) temporary hold mechanism, thus preventing the shift of the FPC and connector after FPC insertion • Only slight force is required to lock the flip-lock (one-touch rotating system) Low Insertion Force (LIF) structure

Applications: • Mobile phones, LCD, digital video camera (DVC), digital cameras (DSC), portable terminals (PDA), camera modules, portable equipment

Specifications: • Current Rating: 0.3A DC • Voltage Rating: 30VAC • Operating Temperature: -55°C ~ 85°C • Insulation Resistance: 50MΩ minimum @ 100VDC • Contact Resistance: 100mΩ maximum @ 90VAC/one minute (Including FPC/FFC conductor resistance)

Materials: • Insulators: LCP, Beige; LCP, black; UL94V-0 • Contacts: Phosphor bronze, tin plating



No. of Pos.	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 2,500	Hirose Part No.
			1	100	250		
Lead-less							
15	7.0	HFQ15CT-ND	1.79	1.38	1.10	701.00/M	FH23-15S-0.3SHW(05)
	7.0	HFQ15CT-ND†	2.18	1.68	1.34	854.00/M	FH23-15S-0.3SHW(05)
17	7.6	HFQ17CT-ND	1.92	1.48	1.18	—	FH23-17S-0.3SHW(05)
	7.6	HFQ17CT-ND†	2.24	1.73	1.38	880.00/M	FH23-17S-0.3SHW(05)
21	8.8	HFQ21CT-ND	2.50	1.93	1.54	982.00/M	FH23-21S-0.3SHW(05)
25	10	HFQ25CT-ND	2.67	2.05	1.64	1046.00/M	FH23-25S-0.3SHW(05)
27	10.6	HFQ27CT-ND	2.28	1.75	1.40	893.00/M	FH23-27S-0.3SHW(05)
	10.6	HFQ27CT-ND†	2.73	2.10	1.68	1071.00/M	FH23-27S-0.3SHW(05)

No. of Pos.	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 2,500	Hirose Part No.
			1	100	250		
31	11.8	HFQ31CT-ND	2.41	1.85	1.48	944.00/M	FH23-31S-0.3SHW(05)
	11.8	HFQ31CT-ND†	2.86	2.20	1.76	1122.00/M	FH23-31S-0.3SHW(05)
33	12.4	HFQ33CT-ND	2.50	1.93	1.54	1281.00/M	FH23-33S-0.3SHW(05)
	12.4	HFQ33CT-ND†	3.09	2.38	1.90	1558.00/M	FH23-33S-0.3SHW(05)
39	14.2	HFQ39CT-ND	2.76	2.13	1.70	1084.00/M	FH23-39S-0.3SHW(05)
	14.2	HFQ39CT-ND†	3.02	2.34	1.88	1326.00/M	FH23-39S-0.3SHW(05)
45	16.0	HFQ45CT-ND	3.06	2.35	1.88	1551.00/M	FH23-45S-0.3SHW(05)
	16.0	HFQ45CT-ND†	3.31	2.57	2.06	1654.00/M	FH23-45S-0.3SHW(05)
51	17.8	HFQ51CT-ND	3.02	2.34	1.88	1326.00/M	FH23-51S-0.3SHW(05)
	17.8	HFQ51CT-ND†	3.15	2.43	1.94	1237.00/M	FH23-51S-0.3SHW(05)
61	20.8	HFQ61CT-ND	3.34	2.59	2.07	1677.00/M	FH23-61S-0.3SHW(05)
	20.8	HFQ61CT-ND†	4.09	3.18	2.54	2005.00/M	FH23-61S-0.3SHW(05)
Leaded							
15	7	HFQ615CT-ND	2.08	1.60	1.28	107.00/M	FH23-15S-0.3SHW(05)
	7.6	HFQ117CT-ND	1.92	1.48	1.18	982.00/M	FH23-17S-0.3SHW(05)
17	7.6	HFQ117CT-ND†	2.24	1.73	1.38	1185.00/M	FH23-17S-0.3SHW(05)
21	8.8	HFQ221CT-ND	2.50	1.93	1.54	1281.00/M	FH23-21S-0.3SHW(05)
	8.8	HFQ121CT-ND	2.08	1.60	1.28	107.00/M	FH23-21S-0.3SHW(05)
25	10.0	HFQ125CT-ND	2.21	1.70	1.36	1137.00/M	FH23-25S-0.3SHW(05)
	10.0	HFQ425CT-ND	2.67	2.05	1.64	1313.00/M	FH23-25S-0.3SHW(05)
27	10.6	HFQ27CT-ND	2.28	1.75	1.40	117.00/M	FH23-27S-0.3SHW(05)
	10.6	HFQ427CT-ND	2.73	2.10	1.68	1407.00/M	FH23-27S-0.3SHW(05)
31	11.8	HFQ131CT-ND	2.41	1.85	1.48	123.00/M	FH23-31S-0.3SHW(05)
	11.8	HFQ131CT-ND	2.50	1.93	1.54	128.00/M	FH23-31S-0.3SHW(05)
33	12.4	HFQ433CT-ND	3.09	2.38	1.90	1558.00/M	FH23-33S-0.3SHW(05)
	12.4	HFQ433CT-ND†	3.09	2.38	1.90	1558.00/M	FH23-33S-0.3SHW(05)
39	14.2	HFQ139CT-ND	2.76	2.13	1.70	142.00/M	FH23-39S-0.3SHW(05)
	14.2	HFQ439CT-ND	3.02	2.34	1.88	151.00/M	FH23-39S-0.3SHW(05)
45	16	HFQ645CT-ND	3.31	2.57	2.06	166.00/M	FH23-45S-0.3SHW(05)
	16	HFQ645CT-ND†	3.31	2.57	2.06	166.00/M	FH23-45S-0.3SHW(05)
51	17.8	HFQ651CT-ND	3.15	2.43	1.94	162.00/M	FH23-51S-0.3SHW(05)
	17.8	HFQ461CT-ND	4.09	3.18	2.54	205.00/M	FH23-51S-0.3SHW(05)

† Gold Plating • RoHS Compliant ‡ For Tape and Reel part number, change CT-ND to TR-ND.

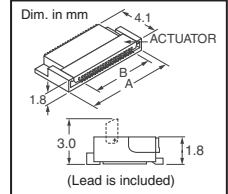
FH18 Series (0.3mm Pitch) Flex Connectors Low Profile

Features: • Contact spacing (pitch) 0.3mm • Flexible Printed Circuits (FPC) with contact spacing of 0.3mm are used with increased frequency (These connectors occupy less board space and are lighter than comparable connectors with contacts spaced at 0.5mm)

Applications: • Consumer electronics, portable equipment, cameras, PDAs and other devices where board space and component packaging requires ultra small interconnection.

Specifications: • Current Rating: 0.15A • Temperature Range: -40°C ~ 70°C • Voltage Rating: 30VAC

Materials: • Insulators: LCP, Body - Beige; Latch - Black; UL94V-0 • Contacts: Phosphor bronze, tin-lead plated; Metal Fitting: Bronze, tin-lead plated



No. of Pos.	Dimensions (mm)		Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 2,500	Hirose Part No.
	A	B		1	100	250		
17	7.6	4.8	HFM17CT-ND	1.69	1.30	1.04	663.00/M	FH18-17S-0.3SHW
	7.6	4.8	HFM117CT-ND	1.89	1.45	1.16	740.00/M	FH18-17S-0.3SHW(05)
21	8.8	6.0	HFM21CT-ND	1.72	1.33	1.06	676.00/M	FH18-21S-0.3SHW
	8.8	6.0	HFM121CT-ND	1.98	1.53	1.22	778.00/M	FH18-21S-0.3SHW(05)
25	10.0	7.2	HFM25CT-ND	1.92	1.48	1.18	752.00/M	FH18-25S-0.3SHW
	10.0	7.2	HFM125CT-ND	2.21	1.70	1.36	1137.00/M	FH18-25S-0.3SHW(05)
27	10.6	7.8	HFM127CT-ND	2.24	1.73	1.38	1185.00/M	FH18-27S-0.3SHW(05)
39	14.2	11.4	HFM39CT-ND	2.21	1.70	1.36	1137.00/M	FH18-39S-0.3SHW
	14.2	11.4	HFM139CT-ND	2.67	2.05	1.64	1377.00/M	FH18-39S-0.3SHW(05)
51	17.8	15.0	HFM151CT-ND	2.50	1.93	1.54	1281.00/M	FH18-51S-0.3SHW
	17.8	15.0	HFM151CT-ND	3.09	2.38	1.90	1558.00/M	FH18-51S-0.3SHW(05)

• RoHS Compliant ‡ For Tape and Reel part number, change CT-ND to TR-ND.

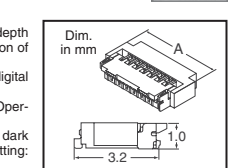
FH26 Series (0.3mm Pitch) Flexible Printed Circuit ZIF Connectors

Features: • Space saving design: connector height is 1.0mm and the depth of the mounting area is 3.2mm • Flip lock actuator allows easy insertion of FPC • Metal FPC insertion guide makes it easy to insert FPC

Applications: • Mobile phone, LCD application, digital video camera, digital camera, PDA, camera module, compact electronic equipment

Specifications: • Current Rating: 0.2A • Voltage Rating: 30VAC • Operating Temperature: -55°C ~ 85°C

Materials: • Insulator: Polyamide, LCP, black, UL94V-0 • Actuator: PA, dark brown, UL94V-0 • Contacts: Phosphor bronze, gold plated • Metal fitting: Phosphor bronze, tin plated (lead free)



No. of Pos.	Dim. A (mm)	Digi-Key Part No.	Cut Tape Price Each			Tape & Reel Pricing 5,000	Hirose Part No.
			1	100	250		
13	5.4	HFQ313CT-ND	2.21	1.70	1.36	850.00/M	FH26-13S-0.3SHW(05)
15	6.0	HFQ315CT-ND	2.28	1.75	1.40	875.00/M	FH26-15S-0.3SHW(05)
17	6.6	HFQ317CT-ND	2.41	1.85	1.48	925.00/M	FH26-17S-0.3SHW(05)
21	7.8	HFQ321CT-ND	2.54	1.95	1.56	975.00/M	FH26-21S-0.3SHW(05)
23	8.4	HFQ323CT-ND	2.63	2.03	1.62	1013.00/M	FH26-23S-0.3SHW(05)
25	9.0	HFQ325CT-ND	2.70	2.08	1.66	1038.00/M	FH26-25S-0.3SHW(05)
27	9.6	HFQ327CT-ND	2.78	2.13	1.70	1063.00/M	FH26-27S-0.3SHW(05)
29	10.2	HFQ329CT-ND	2.89	2.23	1.78	1113.00/M	FH26-29S-0.3SHW(05)
31	10.8	HFQ331CT-ND	2.93	2.25	1.80	1125.00/M	FH26-31S-0.3SHW(05)
33	11.4	HFQ333CT-ND	2.99	2.30	1.84	1150.00/M	FH26-33S-0.3SHW(05)
35	12.0	HFQ335CT-ND	3.12	2.40	1.92	1200.00/M	FH26-35S-0.3SHW(05)
39	13.2	HFQ339CT-ND	2.90	2.25	1.80	1250.00/M	FH26-39S-0.3SHW(05)